POSTER SESSION II

ALLOGENEIC TRANSPLANTS

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Double Umbilical Cord Blood Transplantation after Novel Myeloablative Conditioning Using FluBu4/TLI

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Introduction: Double-unit umbilical cord blood transplantation (dCBT) is a validated strategy to broaden access to hematopoietic stem cell transplantation (HSCT), but is limited by delayed engraftment and immune reconstitution. ATG is a part of conventional myeloablative (MA) conditioning for CBT, and although it may facilitate engraftment, it can also contribute to delayed immune reconstitution through T-cell depletion. We conducted a Phase II trial to assess the safety and efficacy of dCBT following a preparative regimen combining total lymphoid irradiation (TLI, 400 cGy) in lieu of ATG, with Fludarabine/Busulfan 3.2mg/kg IV x4 (FluBu4). Tacrolimus and mycophenolate mofetil were used as GVHD prophylaxis.
Methods and Results: Twenty consecutive patients with hematological malignant or non-malignant disorders were enrolled between 2008 and 2012 at the University of Michigan Blood and Marrow Transplantation Program. Transplants consisted of two umbilical cord blood (UCB) units that were at least a 4/6 HLA match to the pt, and 3/6 match to each other. Median age was 49 yrs (range, 13-64 yrs). Most patients had AML in CR1 or CR2 (40%), followed by NHL in PR or better (25%), MDS (20%), ALL in early relapse (5%), MM in VGPR (5%), and aplastic anemia (5%). Median HCT-CI pretransplant was 3 (0-7). Median total cells infused were 5.3x10^7 (4-15.6x10^7) of recipient body wt. Neutrophil engraftment occurred in 85% of pts (95% CI, 60-95%), at a median of 16 days (12-31), and 14/17 patients engrafted within 26 days. Platelet engraftment occurred in 65% of pts (95% CI, 40-82%) at a median of 43 days (26-86). Cumulative incidences of grade II-IV and grade III/IV acute GVHD was 35% and 10%, respectively, and cumulative incidence of chronic GVHD at 1 year was 25%. Relapse was the primary cause of death and occurred in 6 pts (30%), all within 1 yr. At days 100 and 365, cumulative incidence of TRM was 25% (95% CI, 9-45%) and 35% (95% CI, 16-55%) respectively. Transplant-related mortality trended to pts >50 yrs (p=0.058). The cause of TRM was GVHD in 5 patients and graft failure in 2 patients. Two GVHD deaths resulted from HSV-2 or HHV6 viremia while receiving high dose steroids. OS at 1 year was 40% (95% CI, 19-60%), and 7 (35%) are in CR after median follow up of 2.35 years post-transplant.
Conclusion: In summary, dCBT after MA conditioning with FluBu4/TLI provides high engraftment rates with early neutrophil recovery. Although conclusions regarding survival are limited due to sample size, this seemed to be in line with previous reports, and was clearly better for younger patients (<50 years old).

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Allogeneic Hematopoietic Stem Cell Transplantation (HSCT) for Myelodysplastic Syndrome (MDS): A Single Center Experience

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Introduction: HSCT is the only potentially curative therapy for a well-selected group of patients with MDS. The objective of this work was to describe a single center experience over the past 15 years with HSCT in MDS patients.
Materials and Methods: Retrospective descriptive.
Patients: From 1997 to May 2013, 19 transplants have been performed in 18 patients. 11 were male; mean age was 45 years (range 31-62).

11 patients had marrow failure as predominantly clinical presentation; only one of these patients had not had multiple transfusions at the time of transplantation. 5 patients were in first complete remission after induction chemotherapy. Only 3 patients received hypomethylating therapy before transplantation. Median time from diagnosis to transplant was 296 days (range 58-950).
Results: PBSC from HLA identical sibling donors where use in 18 transplants. One patient received PBSC from an HLA identical URD. Conditioning treatment consisted on Fludarabine-PO Busulfán (11) or PO Busulfan-Cyclosphosphamide (4) in the majority of patients. GVHD prophylaxis was performed with Cyclosporine-MMF(10) or Cyclosporine-MTX (5) in most cases.

17 patients engrafted; one patient had a primary graft failure, which was rescued with a second transplant from the same donor that also failed.

Mean CD34+ infused were 3.5 (range 1.05-4.64), mean neutrophil graft was on day +12 (range 10-16), 4 patients (22 %) died before day 100 (graft failure, alveolar hemorrhage, relapse, liver failure). 3 patients died after the 100th day, all in relation to GVHD. With a median follow up of 24.1 months (range: 0.7-89.1), overall survival was 61 %. GVHD was the most frequent cause of death. 5 of the 7 deaths occurred in the first year.
Conclusion: The HSCT is a curative strategy for a significant percentage of patients with MDS.

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Allogeneic Match Unrelated DONOR Trasplantation: First Experience in Colombia

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